

Bandwidth Matching Device and Method for Operating the Same

ABSTRACT OF THE DISCLOSURE

Broadly speaking, a bandwidth matching device is provided for transforming a
5 number of incoming data streams each having a first bandwidth into an outgoing data
stream having a second bandwidth. More specifically, the bandwidth matching device
provides an assembler and a disassembler. The assembler incorporates a stepped
arrangement of cells for transforming the number of incoming data streams having a
given bandwidth into an outgoing data stream having a larger bandwidth, wherein each
10 portion of the outgoing data stream represents a concatenation of a number of portions of
each of the incoming data streams. As a complement to the assembler, the disassembler
uses a stepped arrangement of cells to transform the concatenated output generated by the
assembler back into the number of incoming data streams originally received by the
assembler.